



Diagnostic Exercise

From The Davis-Thompson Foundation*

Case #: **158** Month: January Year: **2021**

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Clinical History: Approximately 1-week-old Corriente heifer calf that did not receive colostrum within the first 48 hours after birth. It died naturally.

Necropsy Findings: The heifer was in fair nutritional condition and had a dark purple, dry, shrunken umbilicus. The peritoneal cavity contained approximately 200 ml of light yellow to light red, thin, turbid fluid with multiple yellow friable clumps and membranes (fibrin) loosely adherent to the visceral serosa and adventitia of the umbilical arteries. The liver was mottled light brown and dark red with miliary, random, 1-3 mm diameter, tan, flat foci (Figure 1A). The rumen contained small amount of fibrous ingesta and some leaves. The abomasum had moderate amount of curdled milk and fewer shavings. The abomasal mucosa was diffusely dark purple and mildly edematous. Segments of the mid jejunum were gas-distended and thin-walled. The mesocolon was moderately edematous. The ileum and spiral colon were unevenly dilated with mildly thickened walls and segmental hemorrhagic casts (Figure 2A). The ventral portion of the right cranial lung lobes had few patchy dark red, up to 5 mm diameter, flat foci. All carpal and tarsal joints contained small amounts of intra-articular fibrin and increased amounts of thin yellow synovial fluid.

Gross and Microscopic Images:

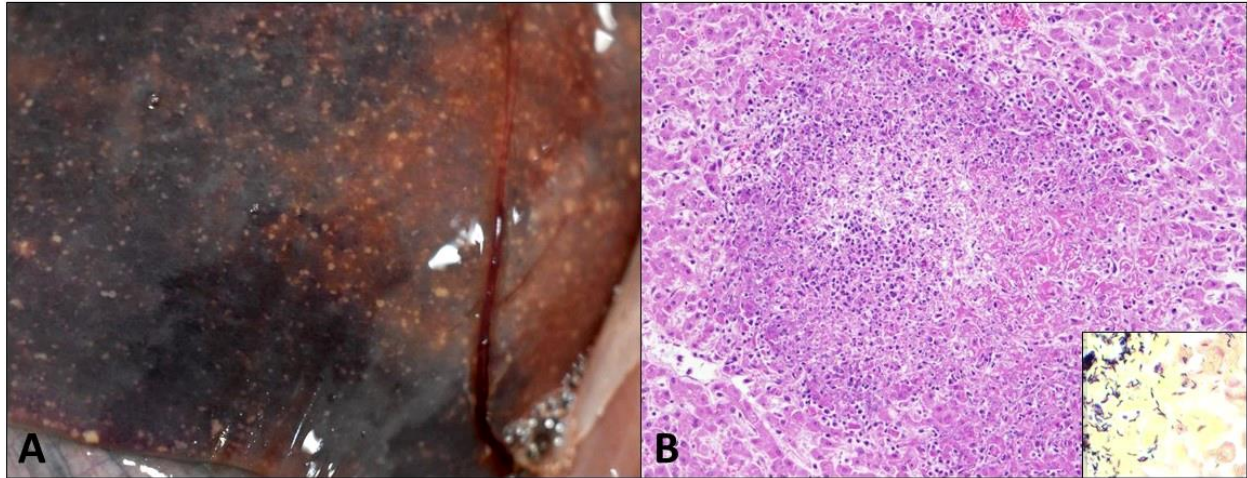


Figure 1 – Liver with miliary tan foci (A). Photomicrograph of the liver (B) and Gram stain highlighting intralesional short to pleomorphic bacilli (inset).

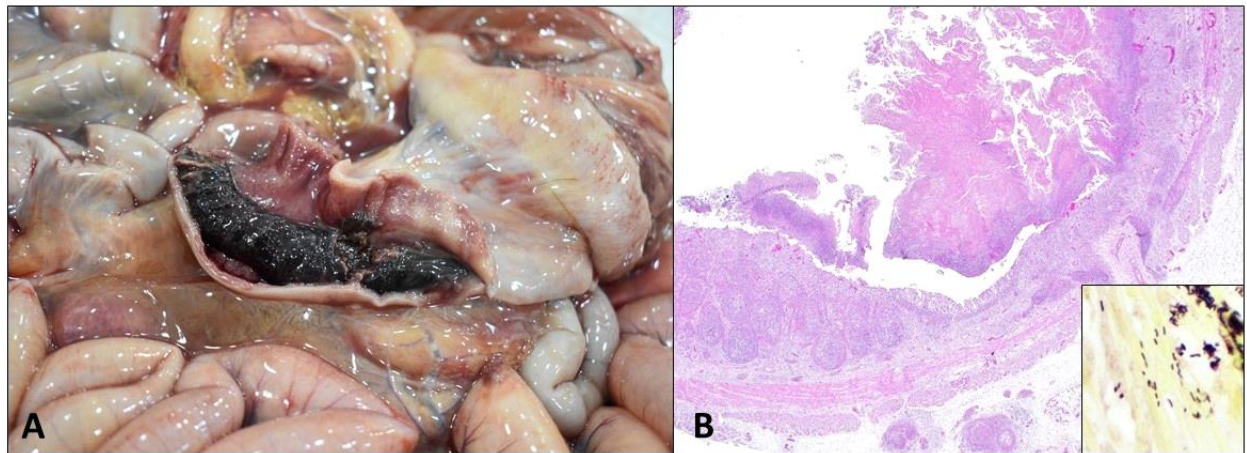


Figure 2 – Enteric luminal hemorrhagic casts (A). Photomicrograph of the affected intestine (H&E) (B) and Gram stain highlighting transmural short to pleomorphic bacilli (inset).

Follow-Up Questions:

- (1) Morphologic diagnoses (gross combined with histopathology);
- (2) Most likely etiology.

*The Diagnostic Exercises are an initiative of the **Latin Comparative Pathology Group (LCPG)**, the Latin American subdivision of The Davis-Thompson Foundation. These exercises are contributed by members and non-members from

any country of residence. Consider submitting an exercise! A final document containing this material with answers and a brief discussion will be posted on the CL Davis website (http://www.cldavis.org/diagnostic_exercises.html).

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